

## PATENT CLAIMS

1. A method for computer-controlled monitoring of a manufacturing process of a plurality of physical objects,  
wherein several rules which relate to at least one status of at least one of the plurality of physical objects are stored;  
wherein a sample is selected from the plurality of physical objects by using the rules, with physical objects of the sample being marked in such a way that they can be subjected to a measurement;  
wherein the rules being formed on the basis of the criterion that the number of measurements is reduced and redundant measurements are avoided; and  
it being possible for the several rules to be combined with one another and checked against one another.
2. The method as claimed in claim 1, wherein the physical object is a wafer.
3. The method as claimed in claim 2, wherein one of the several stored rules relates to an SPC sampling status of the plurality of physical objects.
4. The method as claimed in claim 2 or 3, wherein one of the several stored rules relates to an inquiry of a specific status of the plurality of physical objects.
5. The method as claimed in one of claims 2 to 4, wherein one of the several stored rules relates to an inquiry of an explicit status of the plurality of physical objects at a process step.
6. The method as claimed in one of claims 2 to 5, wherein one of the several stored rules relates to an inquiry of a sampling status of the plurality of physical objects.

7. The method as claimed in one of claims 2 to 6, wherein one of the several stored rules relates to an inquiry of a special monitoring status of the plurality of physical objects.

8. The method as claimed in one of claims 1 to 7, wherein the various stored rules are combined with one another.

9. The method as claimed in one of claims 1 to 8, wherein the marked physical objects are subjected to a measurement.

10. A device for computer-controlled monitoring of a manufacturing process of a plurality of physical objects with a processor which is set up in such a way that the following method steps can be carried out:

storing several rules, wherein the several rules relating to at least one status of at least one of the plurality of physical objects; and

selecting a sample from the plurality of physical objects by using the at least one rule, with the sample being marked in such a way that it can be subjected to a measurement, the rules being formed on the basis of the criterion that the number of measurements is reduced and redundant measurements are avoided, and it being possible for the several rules to be combined with one another and it being possible for the several rules to be combined with one another and checked against one another.

11. A computer-readable storage medium, in which a program for monitoring of a manufacturing process of a plurality of physical objects is stored, which program executes the following method steps when it is run by a processor:

storing several rules, wherein the several rules relating to at least one status of at least one of the plurality of physical objects; and

selecting a sample from the plurality of physical objects by using the at least one rule, with the sample being marked in such a way that it can be subjected to a measurement, the rules being formed on the basis of the criterion

that the number of measurements is reduced and redundant measurements are avoided, and it being possible for the several rules to be combined with one another and it being possible for the several rules to be combined with one another and checked against one another.

12. A computer program element for monitoring of a manufacturing process of a plurality of physical objects which executes the following method steps when it is run by a processor:

storing several rules, wherein the several rules relating to at least one status of at least one of the plurality of physical objects; and

selecting a sample from the plurality of physical objects by using the at least one rule, with the sample being marked in such a way that it can be subjected to a measurement, the rules being formed on the basis of the criterion that the number of measurements is reduced and redundant measurements are avoided, and it being possible for the several rules to be combined with one another and it being possible for the several rules to be combined with one another and checked against one another.